# CRY3711-S03

## IEC 60318-4 Insert Earphones Measurement Occluded-ear Simulator Set

## Features

- **Key Specifications**

| | |
|---|---|
| Sensitivity | 12.5 mV/Pa |
| Dynamic Range | 23 dB to 146 dB |
| Frequency Range | 100 Hz to 10 kHz ±1 dB |

- **Applications**

  Hearing aids measurements
  Insert earphone measurements

- **Standards**

  IEC 60318-4 Electroacoustics - Simulators of human head and ear - Part 4
  ITU-T P.57 Type 2

- **Components**

  CRY3711 Ear Simulator
  CRY3502 1/2" IEPE Preamplifier

## Introduction

The CRY3711-S03 ear simulator set measures the performance of headphones by simulating the way the earplug catheter is inserted into the ear canal or auricle. It has a built in 1/2" prepolarized pressure - field measurement microphone.
The input impedance of CRY3711 - S03 is very close to that of an ordinary human ear and can achieve effective measurement up to 10 kHz. It is often used in acoustic testing of high - quality in - ear headphones.

## Highlights

- **Use Of Ear Simulator Set Compliant With IEC 60318-4**

  The IEC 60318-4 standard describes a closed-ear simulator. This closed-ear simulator is used to measure air-conduction hearing aids and headphones coupled to the ear through ear inserts (such as earmolds or similar devices) in the frequency range from 100 Hz to 10 kHz.

- **Compatibility**

  The CRY3711-S03 coupling cavity kit requires a constant current source power module (IEPE power supply) that can provide 4 mA current and 24V no-load voltage.
  IEPE is a universal constant current source power supply technology used on sensors. Each manufacturer has different names, such as ICP, CCP, etc.

- **Calibration**

  Each CRYSOUND ear simulator set is calibrated at the factory using traceable calibration equipment.
  Calibration certificates are provided with each unit. CRYSOUND recommends recalibration at least once a year.

- **Quality & Warranty**

  All CRYSOUND ear simulator sets are primarily made of stainless steel, which offers high corrosion resistance, durability, and the ability to withstand high pressure and temper-ature.

  CRYSOUND ear simulator sets enjoy a 10-year warranty period. We will provide users with comprehensive after-sales support services.

# Technical Specifications

### Specifications

| | |
|---|---|
| Sensitivity(±2 dB) | 12.5 mV/Pa, -38 dB re 1V/Pa |
| Resonance Frequency | 13.5 kHz ± 1 kHz |
| Frequency Response | 100 Hz to 10 kHz ± 1 dB<br>(simulate human ear impedance)<br>20 Hz to 16kHz<br>(coupling cavity use) |
| Dynamic Range(re.20uPa) | 23 dB to 146 dB |
| Equivalent Volume | 1.26cc |
| Interface Type | SMB |

### Frequency Response

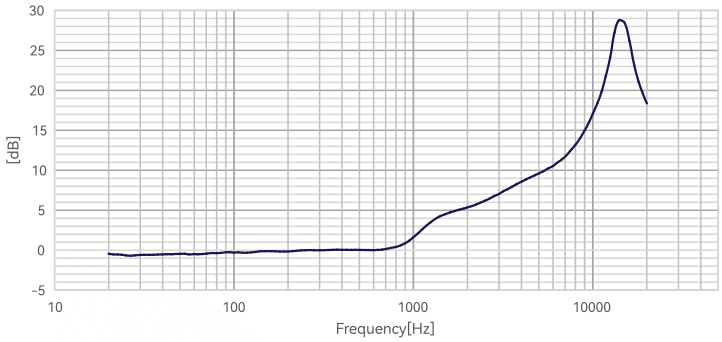


Fig.1 CRY3711 Ear Simulator Typical Frequency Response

### Dimensions

| | |
|---|---|
| Height | 50.5mm (2.165") |
| Diameter | 23.77mm (0.935") |

### Drawings(Mm)[Inch]

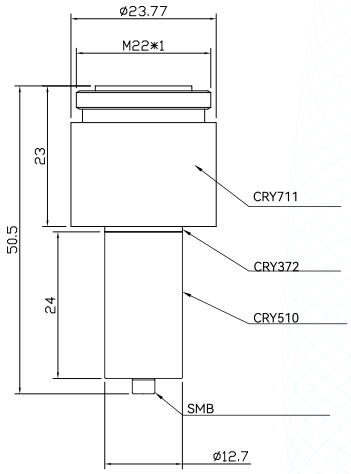


Fig.2 CRY3711-S03 Ear Simulator Set Drawings

# Ordering Information

### Consisting Of

| | |
|---|---|
| Ear Simulator | CRY3711 Ear Simulator |
| Preamplifier | CRY3502 1/2" IEPE Preamplifier |
| Cable | SMB to BNC Cable /1.5m |
| Accessories | Coupler Chamber Accessories |

### Optional Accessories

| | |
|---|---|
| Electroacoustic Analyzer | CRY6151B Electroacoustic Analyzer |
| Power Supply | CRY575 Three-channel Microphone Power Supply |
| Cable | SMB to BNC Cable /2.0m<br>SMB to BNC Cable /0.6m<br>SMB to BNC Cable /0.8m |

### Related Products

| | |
|---|---|
| CRY3717-S02 | IEC 60318-3 Supra-aural Audiometry Earphone Measurement 6cc Coupler Set |
| CRY3718-S01 | IEC 60318-1 Supra-aural and Circumaural Earphone Measurement Ear Simulator Set |
| CRY3719-S01 | IEC 60318-5 Hearing Aids and in-ear headphones Measurement 2cc Coupler Set |
| CRY3721-S01 | IEC 60318-4, Ultra Low-noise, Wide-frequencg Ear Simulator Set |